AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

Claim 1 (Original): A method for noise variance estimation of a detected signal, the method comprising:

receiving a signal and producing therefrom in a detector a detected signal;

producing from the received signal a first noise variance signal representative of noise variance in the received signal; and

producing from the detected signal and the first noise variance signal a second noise variance signal representative of noise variance estimation in the received signal.

Claim 2 (Currently amended): The method of claim 1, wherein the ~~step of~~ producing the second noise variance signal comprises applying a function equal to ~~the detector's~~ a transfer function of the detector to the first noise variance signal.

Claim 3 (Currently amended): The method of claim 1, wherein the ~~step of~~ producing the first noise variance signal comprises deriving the first noise variance signal from a midamble portion of the received signal.

Claim 4 (Previously presented): The method of claim 1, further comprising:

producing from the second noise variance signal and an estimate of total power at the detector output a signal-to-interference ratio (SIR) signal representative of SIR in the received signal.

Claim 5 (Previously presented): The method of claim 1, wherein the detector is a CDMA multi-user detector.

Claim 6 (Previously presented): The method of claim 1, wherein the detector is a CDMA single-user detector.

Claim 7 (Previously presented): The method of claim 1, wherein the detector comprises a CDMA RAKE receiver.

Claim 8 (Previously presented): The method of claim 1, wherein the received signal is a wireless signal.

Claim 9 (Previously presented): The method of claim 8, wherein the wireless signal is a UMTS air interface signal.

Claim 10 (Previously presented): A user equipment capable of noise variance estimation of a detected signal, the user equipment comprising:

a detector for receiving a signal and detecting therein a detected signal;

first noise variance logic for producing from the received signal a first noise variance signal representative of noise variance in the received signal; and

second noise variance logic for producing from the detected signal and the first noise variance signal a second noise variance signal representative of noise variance estimation in the received signal.

Claim 11 (Currently amended): The user equipment of claim 10, wherein the second noise variance logic is ~~arranged~~ operable to apply a function equal to ~~the detector's~~ a transfer function of the detector to the first noise variance signal to produce the second noise variance signal.

Claim 12 (Currently amended): The user equipment of claim 10, wherein the first noise variance logic is ~~arranged~~ operable to derive the first noise variance signal from a midamble portion of the received signal.

Claim 13 (Previously presented): The user equipment of claim 10, further comprising:

signal-to-interference ratio (SIR) estimation logic for producing from the second noise variance signal and an estimate of total power at the detector output an SIR signal representative of SIR in the received signal.

Claim 14 (Previously presented): The user equipment of claim 10, wherein the detector is a CDMA multi-user detector.

Claim 15 (Previously presented): The user equipment of claim 10, wherein the detector is a CDMA single-user detector.

Claim 16 (Previously presented): The user equipment of claim 10, wherein the detector comprises a CDMA RAKE receiver.

Claim 17 (Cancelled)

Claim 18 (Previously presented): The user equipment of claim 10, wherein the received signal is a UMTS air interface signal.

Claim 19-25 (Cancelled)

Claim 26 (Currently amended): A base station capable of noise variance estimation of a detected signal, the base station comprising:

a detector for receiving a signal and detecting therein a detected signal;

first noise variance logic for producing from the received signal a first noise variance signal representative of noise variance in the received signal; and

second noise variance logic for producing from the detected signal and the first noise variance signal a second noise variance signal representative of noise variance estimation in the received signal.

Claim 27 (Currently amended): The base station of claim 26, wherein the second noise variance logic is ~~arranged~~ operable to apply a function equal to ~~the detector's~~ a transfer

function of the detector to the first noise variance signal to produce the second noise variance signal.

Claim 28 (Currently amended): The base station of claim 26, wherein the first noise variance logic is ~~arranged~~ operable to derive the first noise variance signal from a midamble portion of the received signal.

Claim 29 (Previously presented): The base station of claim 26, further comprising:

SIR estimation logic for producing from second noise variance signal and an estimate of total power at the detector output an SIR signal representative of SIR in the received signal.

Claim 30 (Previously presented): The base station of claim 26, wherein the detector is a CDMA multi-user detector.

Claim 31 (Previously presented): The base station of claim 26, wherein the detector is a CDMA single-user detector.

Claim 32 (Previously presented): The base station of claim 26, wherein the detector comprises a CDMA RAKE receiver.

Claim 33 (Previously presented): The base station of claim 26, wherein the received signal is a UMTS air interface signal.

Claim 34 (Previously presented): A user equipment comprising:

a memory;

a processor coupled to the memory; and

program code executable on the processor, the program code operable for:

receiving a signal and producing therefrom in a detector a detected signal;

producing from the received signal a first noise variance signal representative of noise variance in the received signal; and

producing from the detected signal and the first noise variance signal a second noise variance signal representative of noise variance estimation in the received signal.

Claim 35 (Previously presented): A base station comprising:

a memory;

a processor coupled to the memory; and

program code executable on the processor, the program code operable for:

receiving a signal and producing therefrom in a detector a detected signal;

producing from the received signal a first noise variance signal representative of noise variance in the received signal; and

producing from the detected signal and the first noise variance signal a second noise variance signal representative of noise variance estimation in the received signal.

Claim 36 (Currently amended): A computer-readable medium encoded with executable instructions for noise variance estimation of a detected signal, the instructions comprising instructions for:~~A computer program product comprising program code for noise variance estimation of a detected signal, the computer program product comprising program code for:~~

receiving a signal and producing therefrom in a detector a detected signal;

producing from the received signal a first noise variance signal representative of noise variance in the received signal; and

producing from the detected signal and the first noise variance signal a second noise variance signal representative of noise variance estimation in the received signal.

Claim 37 (Currently amended): The ~~computer program product~~ computer-readable medium of claim 36, wherein the ~~program code is~~ instructions are further ~~operable~~ for:

applying a function equal to ~~the detector's~~ a transfer function of the detector to the first noise variance signal.

Claim 38 (Currently amended): The ~~computer program product~~ computer-readable medium of claim 36, wherein the ~~program code is~~ instructions are further ~~operable~~ for deriving the first noise variance signal from a midamble portion of the received signal.

Claim 39 (Currently amended): The ~~computer program product~~ computer-readable medium of claim 36, wherein the ~~program code is~~ instructions are further ~~operable~~ for producing from the second noise variance signal and an estimate of total power at the detector output an SIR signal representative of SIR in the received signal.

Claim 40 (Currently amended): A communication system ~~arranged~~ configured to provide for noise variance estimation of a detected signal, the communication system comprising:

a detector for receiving a signal and detecting therein a detected signal;

first noise variance logic for producing from the received signal a first noise variance signal representative of noise variance in the received signal; and

second noise variance logic for producing from the detected signal and the first noise variance signal a second noise variance signal representative of noise variance estimation in the received signal.

Claim 41 (Previously presented): An integrated circuit for receiving a signal and detecting therein a detected signal, the integrated circuit comprising:

first noise variance means for producing from the received signal a first noise variance signal representative of noise variance in the received signal; and

second noise variance means for producing from the detected signal and the first noise variance signal a second noise variance signal representative of noise variance estimation in the received signal.